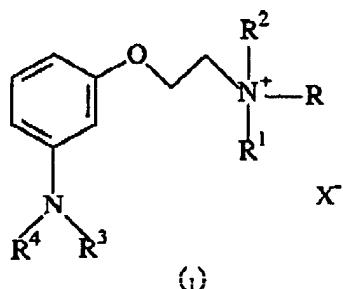


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hydroxyalkyl, C₁ to C₆ alkoxy, C₁ to C₆ aminoalkyl or R³ and R⁴ together form a C₄ C₂ to C₅ alkylene group; and R⁵ is selected from C₁ to C₂₂ alkyl and C₁ to C₂₂ mono or dihydroxyalkyl. Preferably X is Cl, Br, I and R⁵SO₄ where R⁵ is C₁ to C₄ alkyl, more preferably methyl; and preferably R, R¹, R², R³ and R⁴ are each individually C₁ to C₃ alkyl, and more preferably methyl.

THE CLAIMS

1. (amended) A compound of formula (1):



wherein X is selected from the group consisting of halogen and R⁵SO₄; R, R¹, and R² are each individually selected from the group consisting of C₁ to C₂₂ alkyl, C₁ to C₂₂ mono or dihydroxyalkyl, or two of R, R¹ and R² together with the nitrogen atom to which they are attached form a C₃ to C₆ saturated or unsaturated ring optionally containing in the ring one or more additional hetero atoms selected from O, S and N atoms; R³ and R⁴ are each individually selected from the group consisting of C₁ to C₆ alkyl, C₁ to C₆ hydroxyalkyl, C₁ to C₆ alkoxy, C₁ to C₆ aminoalkyl or R³ and R⁴ together form a C₄ C₂ to C₅ alkylene group; and R⁵ is selected from the group consisting of C₁ to C₂₂ alkyl and C₁ to C₂₂ mono and dihydroxyalkyl.

2. (original) A compound of Claim 1 wherein X is selected from the group consisting of Cl, Br, I and R⁵SO₄ where R⁵ is C₁ to C₃ alkyl; and R, R¹, R², are selected from the group consisting of a C₁ to C₃ alkyl group or two of R, R¹ and R² together with the nitrogen atom to which they are attached form a piperazinium or imidazolium group, and R³ and R⁴ are each individually a C₁ to C₃ alkyl group.

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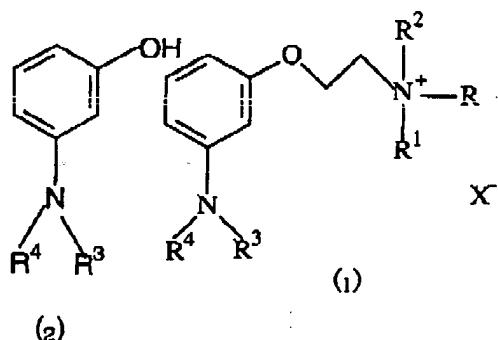
3. (original) A compound of Claim 2 wherein each of R, R¹, R², R³, R⁴ and R⁵ are methyl groups.

4. (original) A compound of Claim 2 wherein X is selected from the group consisting of Cl, Br and methyl sulfate.

5. (original) A compound of Claim 3 wherein X is selected from the group consisting of Cl, Br and methyl sulfate.

6. (original) A compound of Claim 5 wherein X is Br.

7. (amended) A process for the preparation of a compound of formula (1);

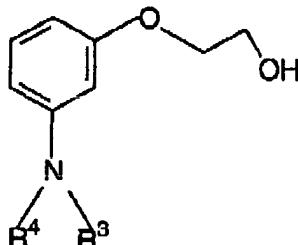


wherein X is selected from the group consisting of halogen and R⁵SO₄; R, R¹, and R² are each individually selected from the group consisting of C₁ to C₂₂ alkyl, C₁ to C₂₂ mono or dihydroxyalkyl, or two of R, R¹ and R² together with the nitrogen atom to which they are attached form a C₃ to C₆ saturated or unsaturated ring optionally containing in the ring one or more additional hetero atoms selected from O, S and N atoms; R³ and R⁴ are each individually selected from the group consisting of C₁ to C₆ alkyl, C₁ to C₆ hydroxylalkyl, C₁ to C₆ alkoxy, C₁ to C₆ aminoalkyl or R³ and R⁴ together form a C₂ to C₅ alkylene group; and R⁵ is selected from the group consisting of C₁ to C₂₂ alkyl and C₁ to C₂₂ mono

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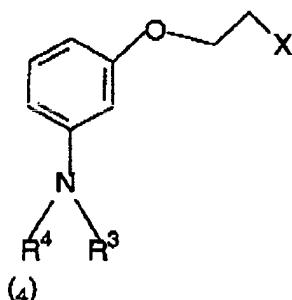
and dihydroxyalkyl of Claim 1 comprising (a) reacting an aminophenol of the formula (2):

with a 2-haloethanol and potassium carbonate to produce an alcohol of formula (3):



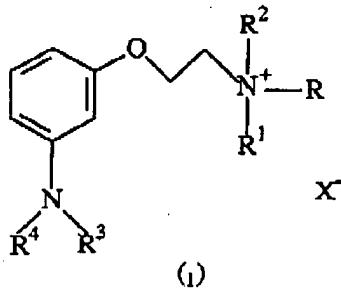
(3)

(b) converting the alcohol of formula (3) into a compound of formula (4) by reacting the alcohol compound with triphenylphosphine and a halo-succinimide



(4)

and (c) reacting the compound of formula (4) with a quaternization agent of the formula (NRR¹R²) to produce a compound of formula (1)



wherein X, R, R¹, R², R³ and R⁴ are as defined in Claim 1.

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8. (original) A process according to Claim 7 wherein X is selected from the group consisting of Cl, Br, I and R⁵SO₄ where R⁵ is C₁ to C₃ alkyl; and R, R¹, R², are selected from the group consisting of a C₁ to C₃ alkyl group or two of R, R¹ and R² together with the nitrogen atom to which they are attached form a piperazinium or imidazolium group, and R³ and R⁴ are each individually a C₁ to C₃ alkyl group.

9. (original) A process according to Claim 7 wherein each of R, R¹, R², R³, R⁴ and R⁵ are methyl groups.

10. (original) A process according to Claim 7 wherein X is selected from the group consisting of Cl, Br and methyl sulfate.

11. (withdrawn)

12. (withdrawn)

13. (withdrawn)

14. (withdrawn)

15. (withdrawn)

16. (withdrawn)

17. (withdrawn)

18. (withdrawn)

19. (withdrawn)

20. (withdrawn)

21. (withdrawn)

22. (withdrawn)

23. (withdrawn)

24. (withdrawn)

REMARKS

Claims 1-24 remain pending in the present application. Claims 11-24 have been withdrawn from consideration. Claim 1 has been amended to correct an obvious error. Claim 7